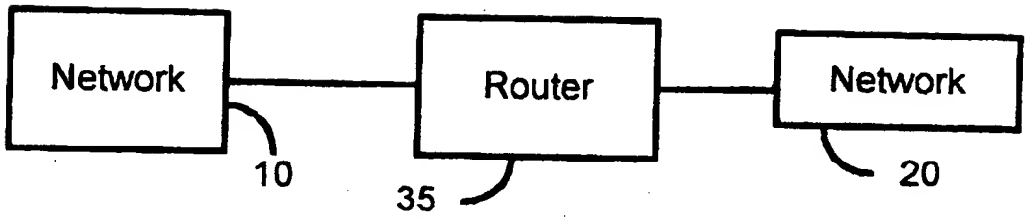
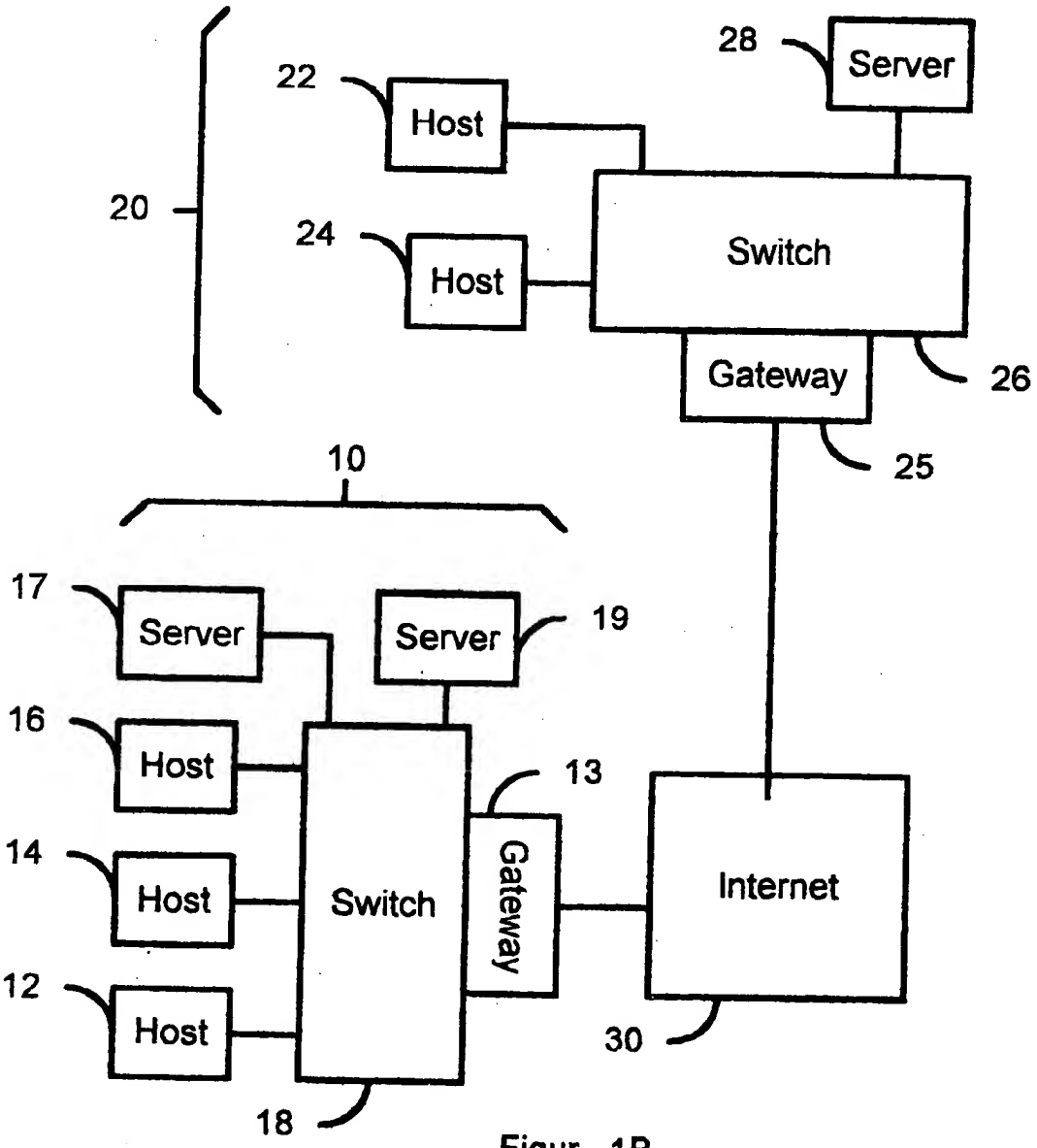


Figure 1A



Figur 1B

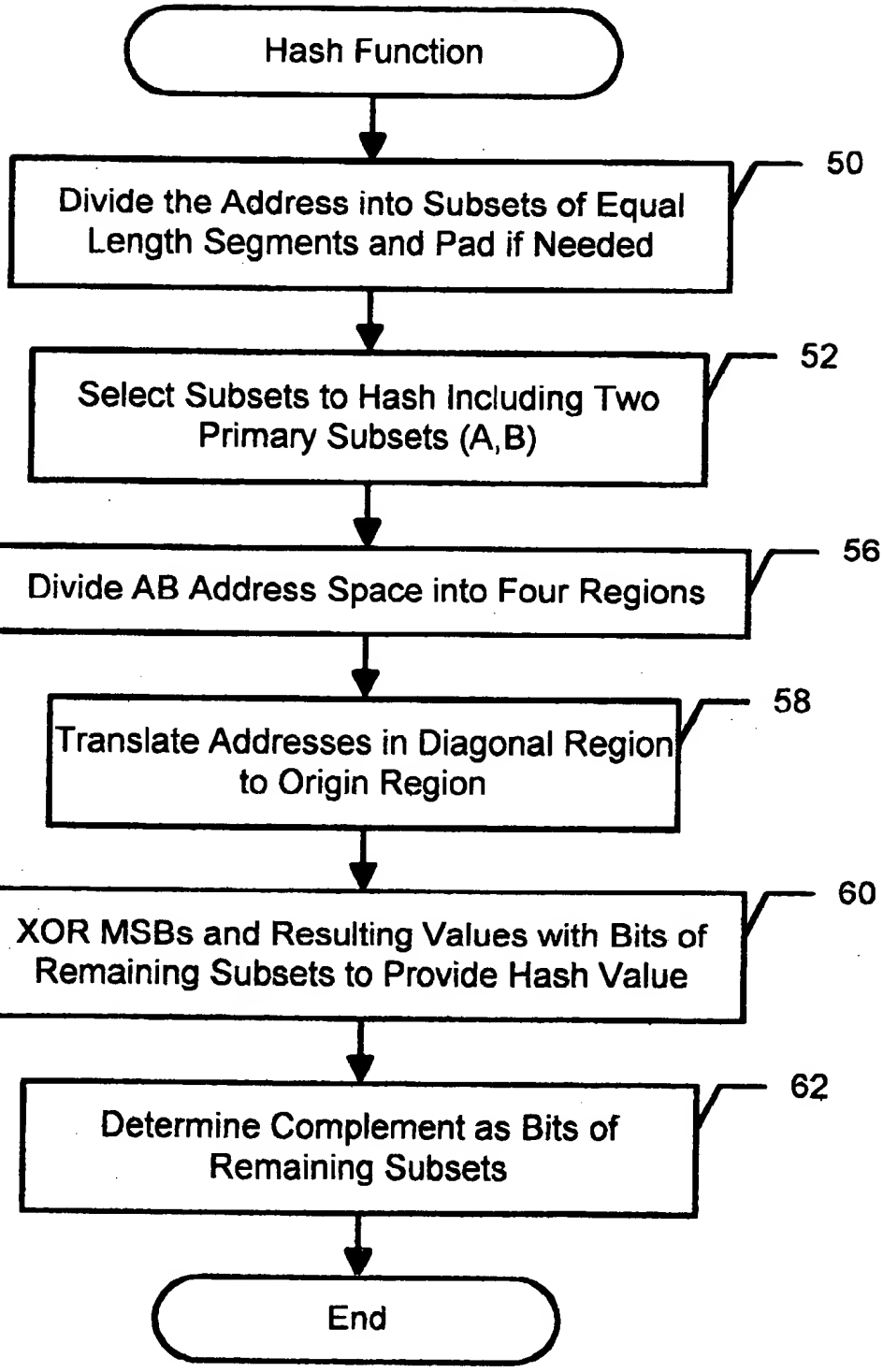

Hash Function
Divide the Address into Subsets of Equal Length Segments and Pad if Needed
50
Select Subsets to Hash Including Two Primary Subsets (A,B)
52
Divide AB Address Space into Four Regions
56
Translate Addresses in Diagonal Region to Origin Region
58
XOR MSBs and Resulting Values with Bits of Remaining Subsets to Provide Hash Value
60
Determine Complement as Bits of Remaining Subsets
62
End

Figure 2

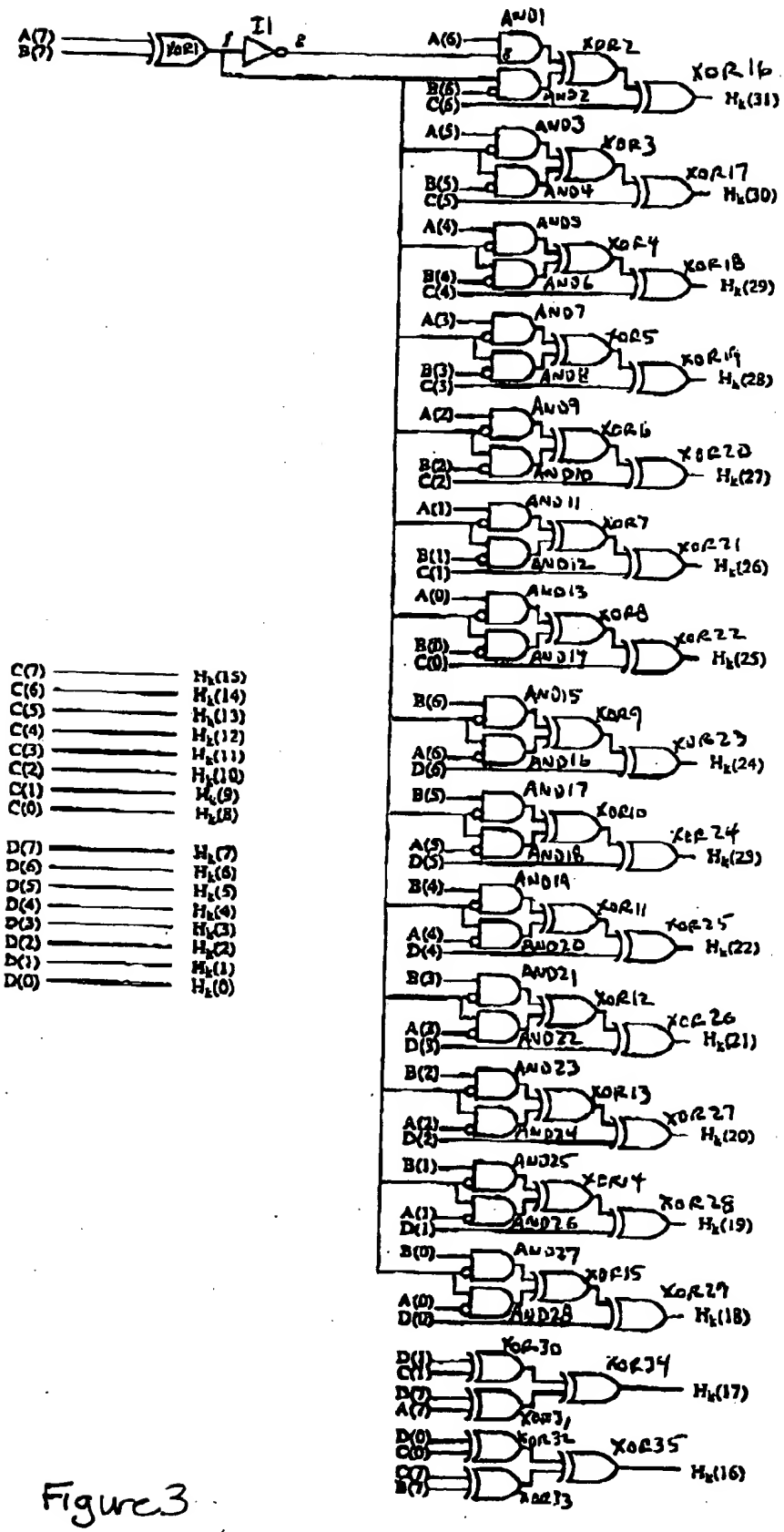

A(7)
B(7)
XOR1
I1
AND1
XOR2
XOR16
AND2
AND3
XOR3
XOR17
AND4
AND5
XOR4
XOR18
AND6
AND7
XOR5
XOR19
AND8
AND9
XOR6
XOR20
AND10
AND11
XOR7
XOR21
AND12
AND13
XOR8
XOR22
AND14
AND15
XOR9
XOR23
AND16
AND17
XOR10
XOR24
AND18
AND19
XOR11
XOR25
AND20
AND21
XOR12
XOR26
AND22
AND23
XOR13
XOR27
AND24
AND25
XOR14
XOR28
AND26
AND27
XOR15
XOR29
AND28
XOR30
XOR34
XOR31
XOR32
XOR35
AND13
C(7) H(15)
C(6) H(14)
C(5) H(13)
C(4) H(12)
C(3) H(11)
C(2) H(10)
C(1) H(9)
C(0) H(8)
D(7) H(7)
D(6) H(6)
D(5) H(5)
D(4) H(4)
D(3) H(3)
D(2) H(2)
D(1) H(1)
D(0) H(0)

Figure3

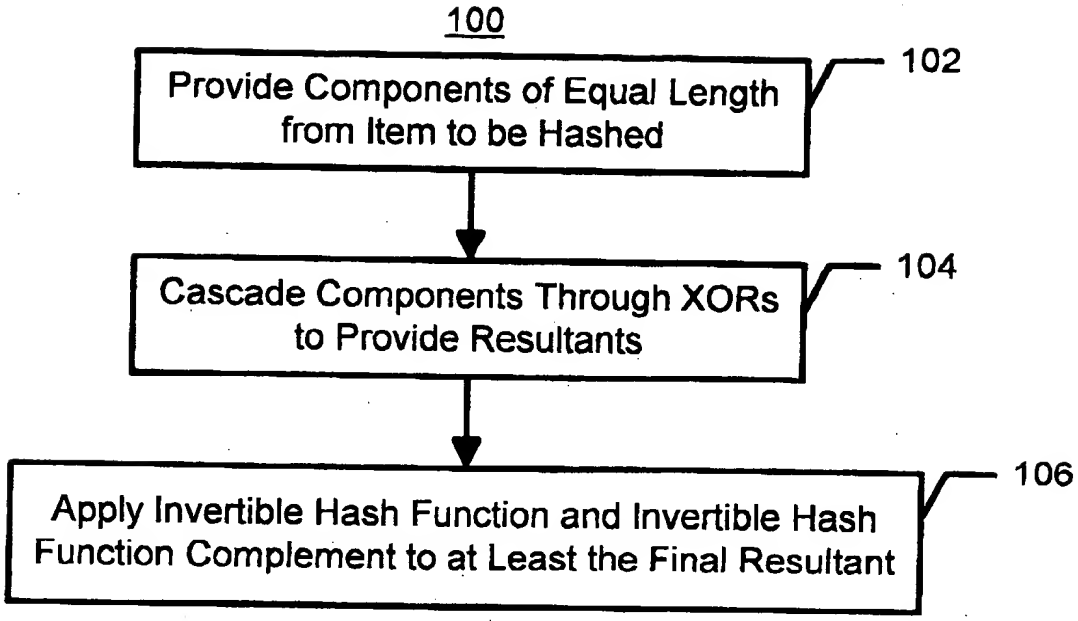


Figure 4A

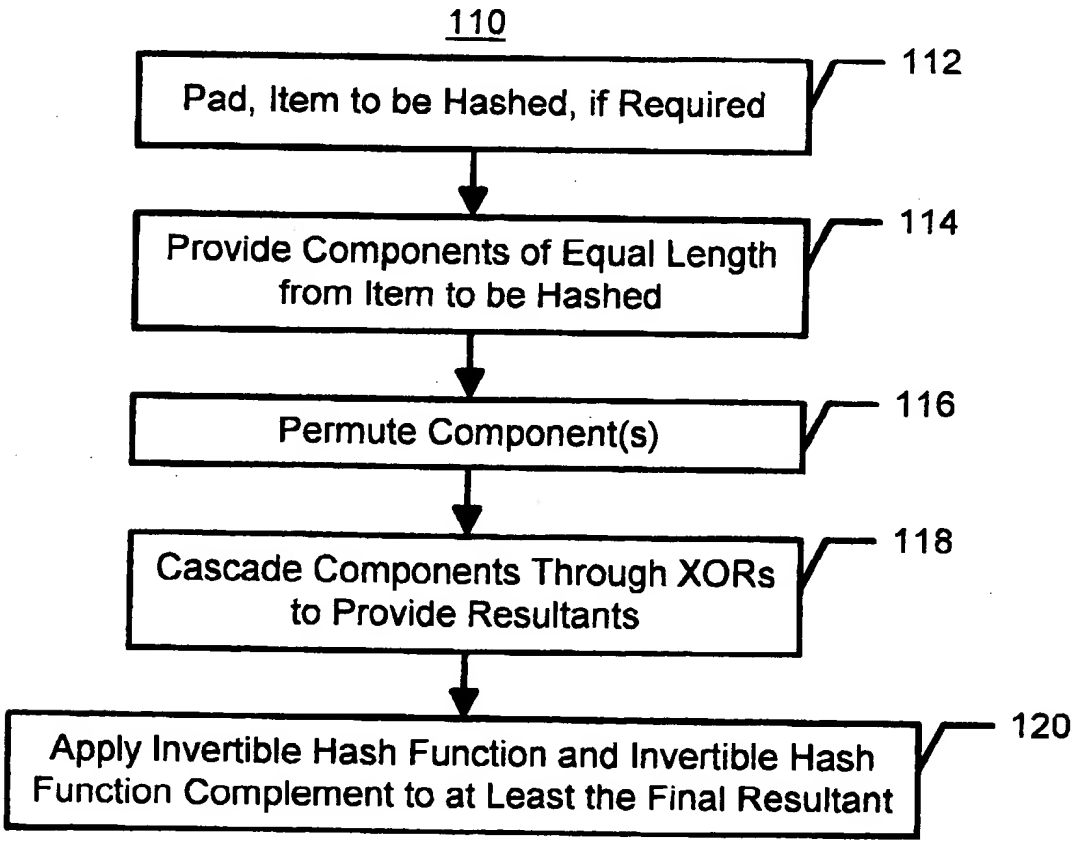


Figure 5

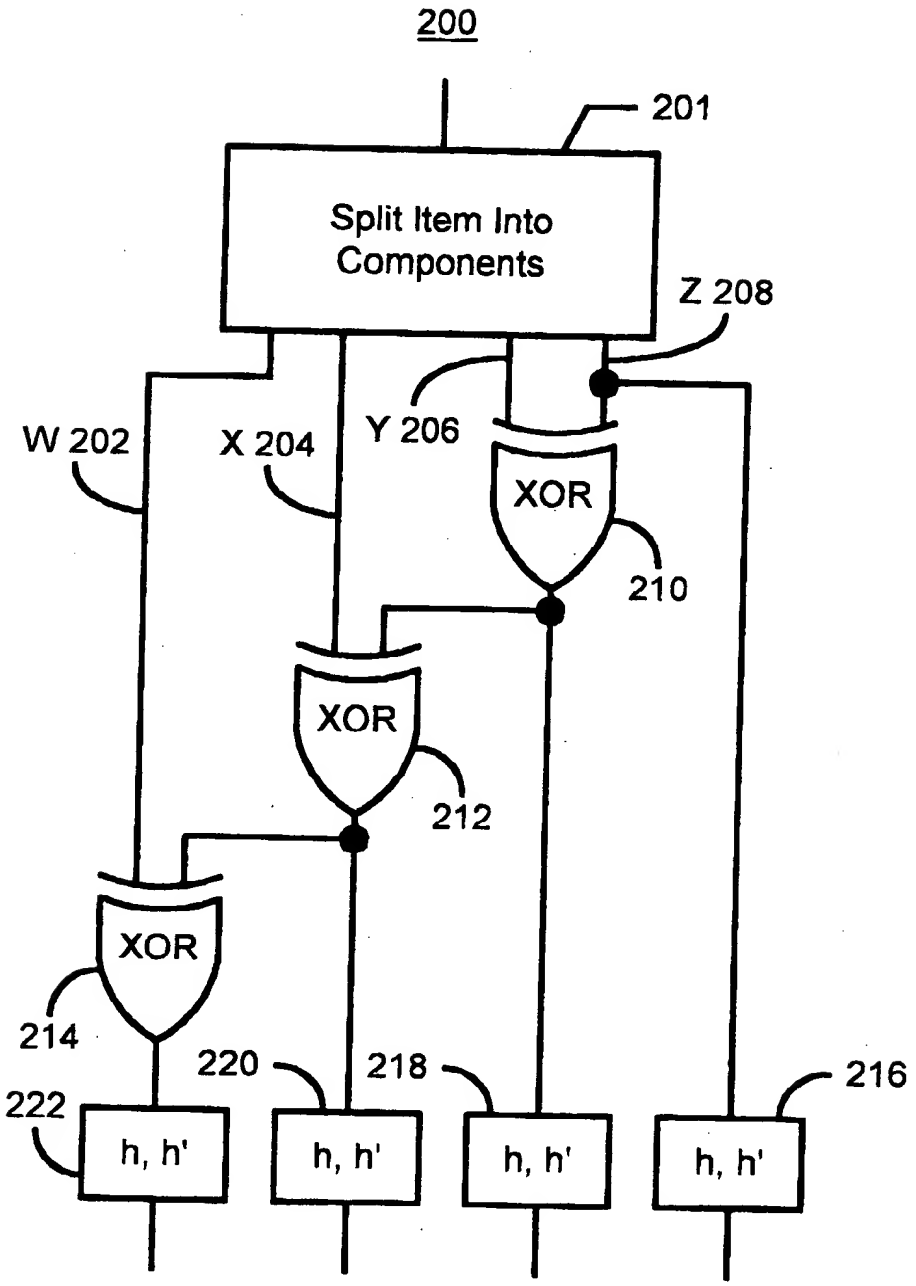

200
201
Split Item Into Components
Z 208
W 202
X 204
Y 206
XOR
210
XOR
212
XOR
214
220
218
216
222
h, h'
h, h'
h, h'
h, h'

Figure 4B

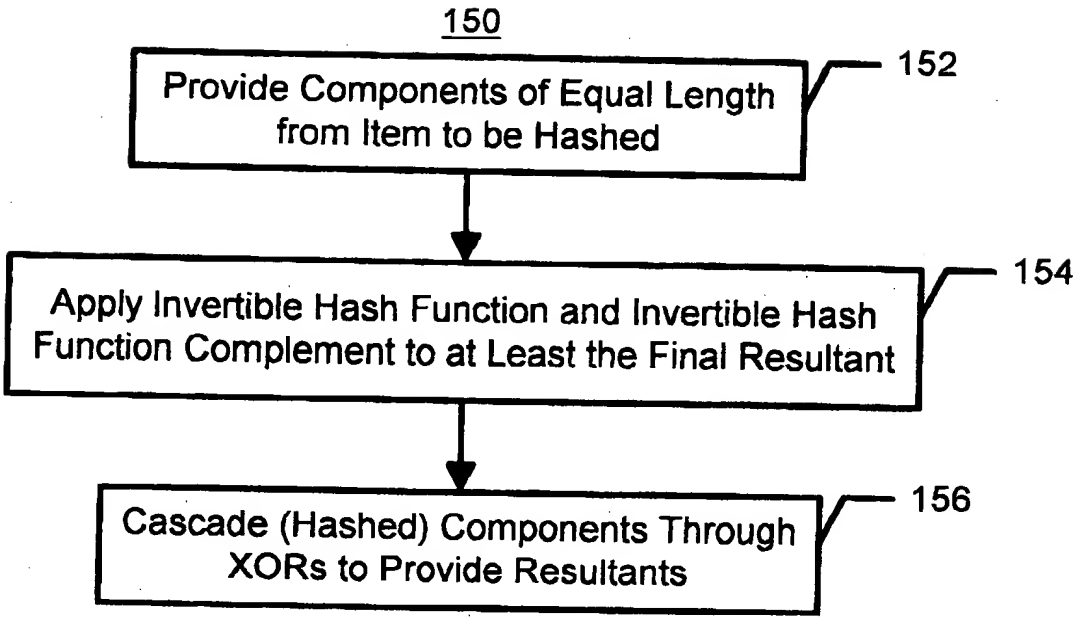


Figure 6A

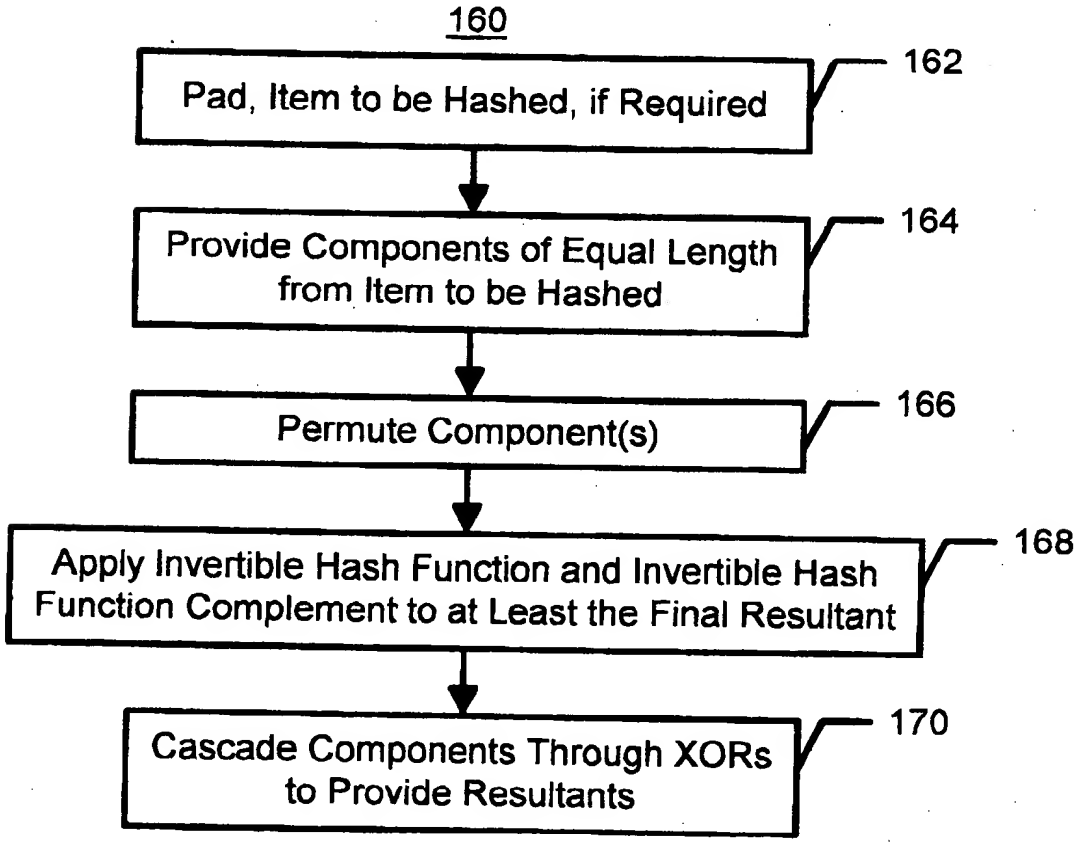


Figure 7

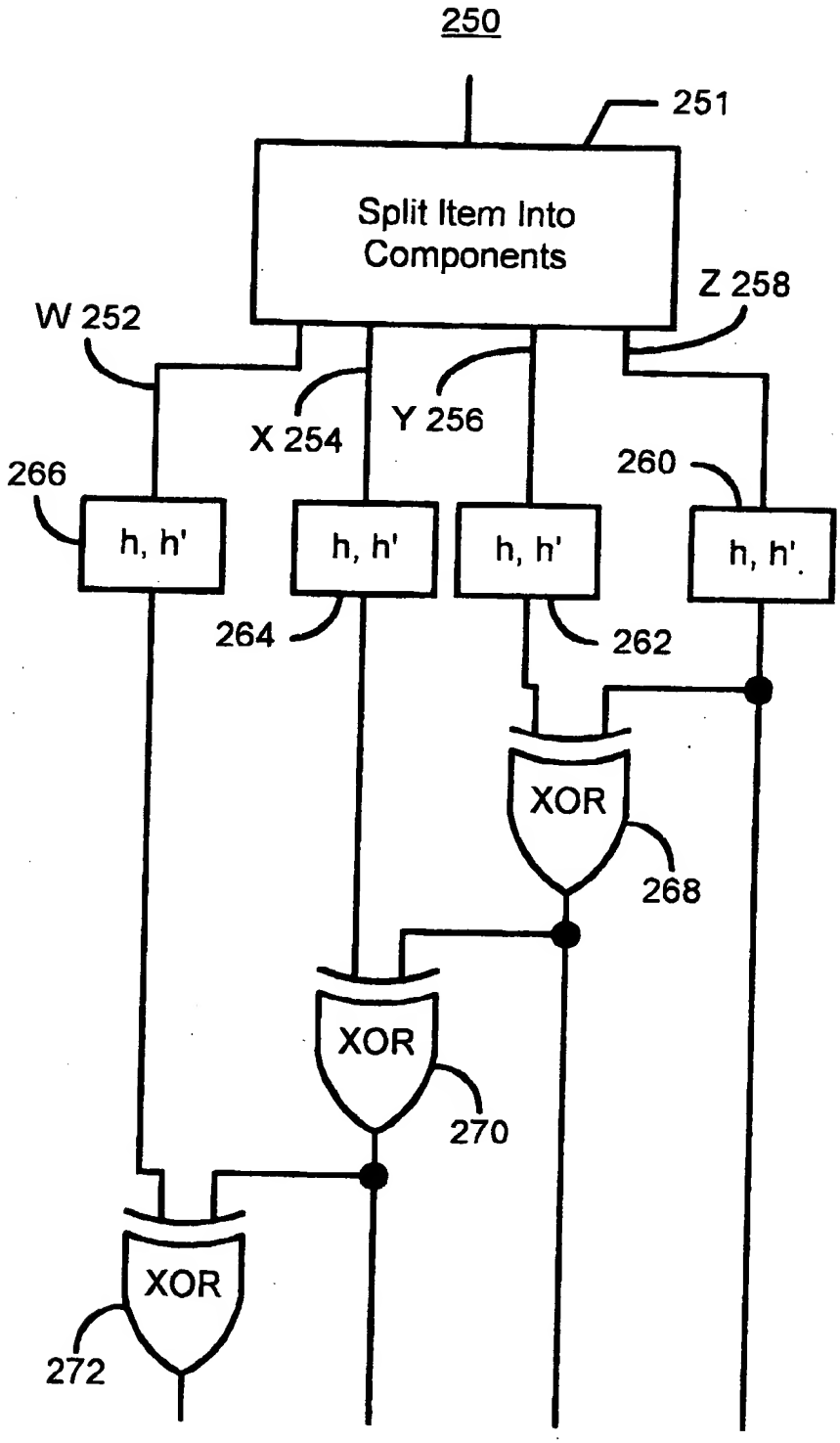

250
251
Split Item Into Components
W 252
X 254
Y 256
Z 258
266
260
h, h'
h, h'
h, h'
h, h'
264
262
XOR
268
XOR
270
XOR
272

Figure 6B

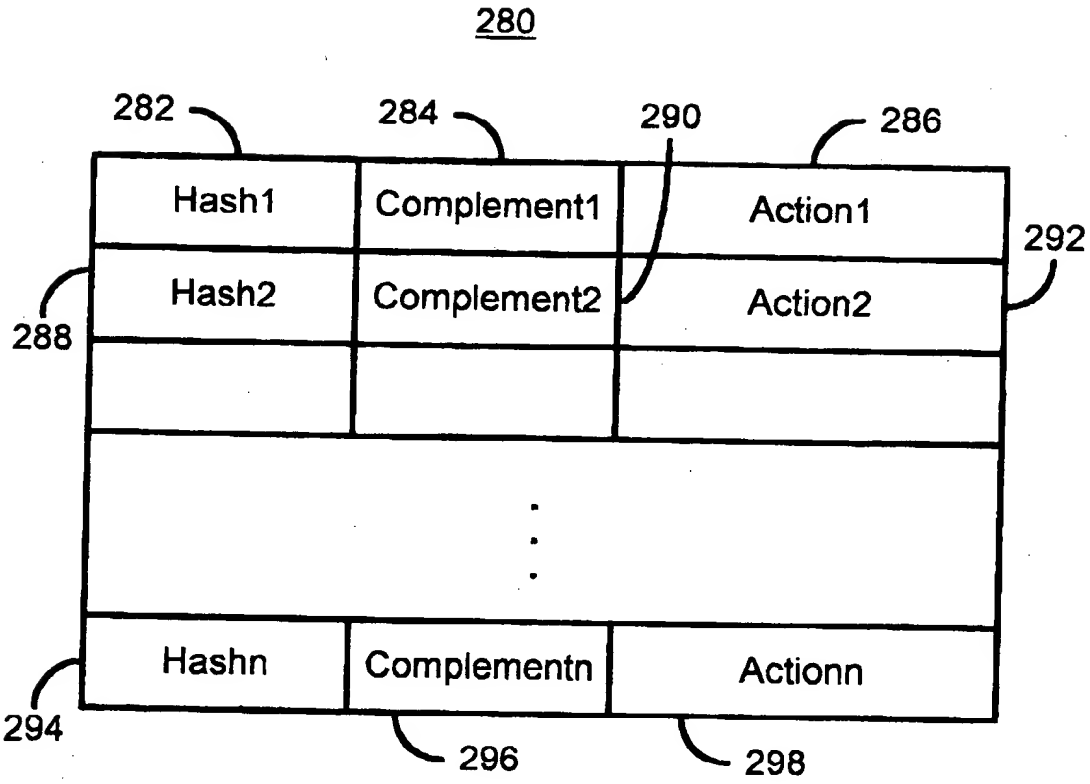

280
282
284
290
286
Hash1
Complement1
Action1
292
Hash2
Complement2
Action2
288
Hashn
Complementn
Actionn
294
296
298

Figure 8

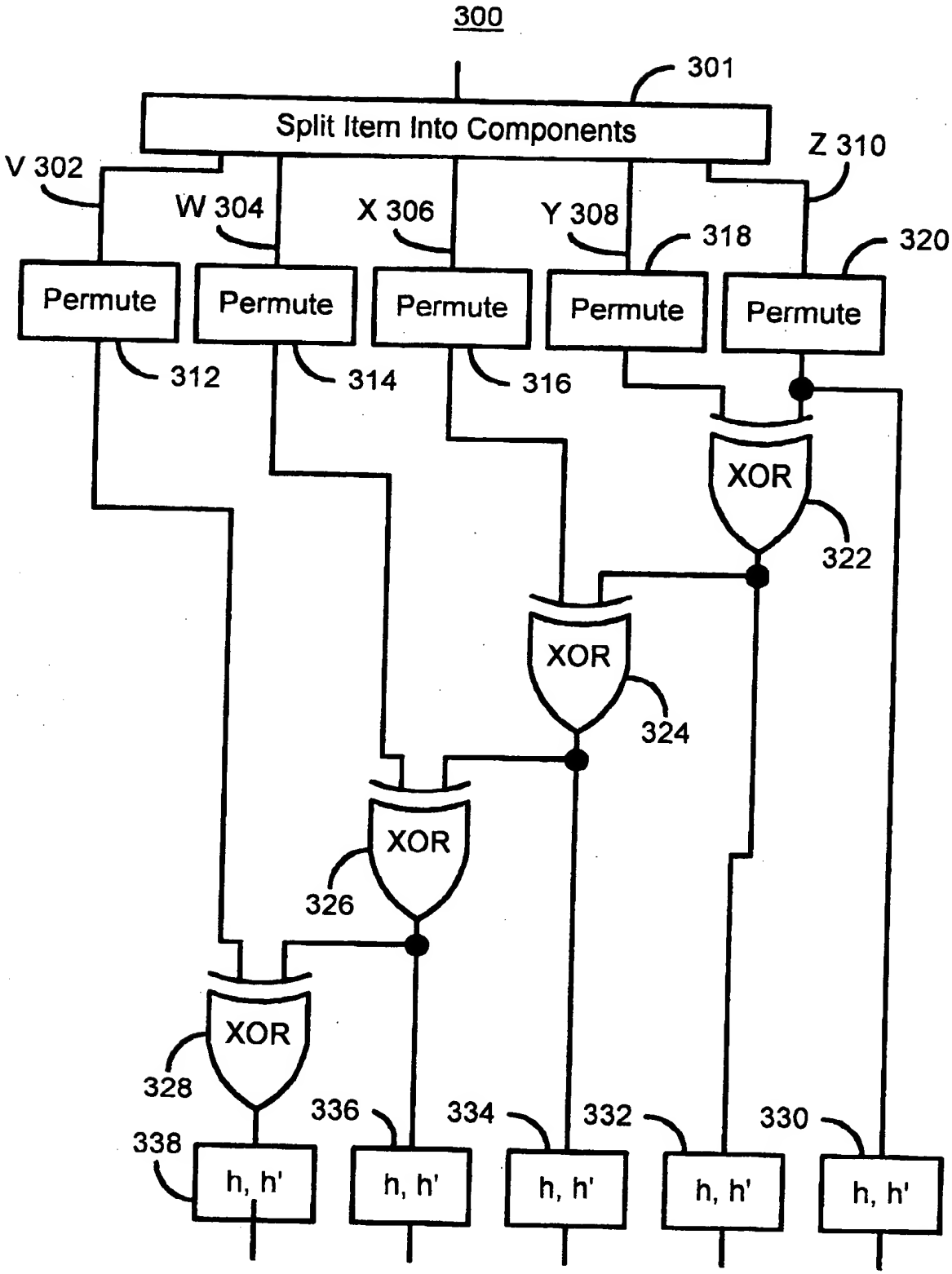

300
301
Split Item Into Components
V 302
W 304
X 306
Y 308
Z 310
318
320
Permute
Permute
Permute
Permute
Permute
312
314
316
XOR
322
XOR
324
XOR
326
XOR
328
336
334
332
330
338
h, h'
h, h'
h, h'
h, h'
h, h'

Figure 9